

updating the eUICC level file based at least in part on the identified MNO specific information.

[0040] In some embodiments, the mobile device is configured to access wireless services provided by the MNO while the eSIM is installed and enabled on the eUICC. In some embodiments, the memory is included within the eUICC. In some embodiments, updating the eUICC level file based at least in part on the identified MNO specific information includes merging at least part of the MNO specific information with a present version of the eUICC level file. In some embodiments, the steps carried out by the mobile device further include storing the updated eUICC level file in the memory for future use. In some embodiments, the steps carried out by the mobile device further include replacing a present version of the eUICC level file with the stored updated eUICC level file in response to receipt of a command to enable the eSIM. In some embodiments, the eUICC level file includes an elementary file (EF) that includes hardware specific parameters for the eUICC. In some embodiments, the updated eUICC level file includes an elementary file (EF) that includes hardware specific parameters for the eUICC and MNO specific parameters for the eSIM. In some embodiments, the MNO specific information in the eSIM includes an elementary file (EF) or a data object that defines one or more operating parameters for the eUICC and specified by the MNO. In some embodiments, the steps carried out by the mobile device further include replacing a present version of the eUICC level file with a default stored eUICC level file in response to receipt of a command to disable one or more eSIMs of the eUICC after which no eSIMs will be enabled on the eUICC.

[0041] The various aspects, embodiments, implementations or features of the described embodiments can be used separately or in any combination. Various aspects of the described embodiments can be implemented by software, hardware or a combination of hardware and software. The described embodiments can also be embodied as computer readable code on a computer readable medium. The computer readable medium is any data storage device that can store data, which can thereafter be read by a computer system. Examples of the computer readable medium include read-only memory, random-access memory, CD-ROMs, DVDs, magnetic tape, hard disk drives, solid state drives, and optical data storage devices. The computer readable medium can also be distributed over network-coupled computer systems so that the computer readable code is stored and executed in a distributed fashion.

[0042] The foregoing description, for purposes of explanation, used specific nomenclature to provide a thorough understanding of the described embodiments. However, it will be apparent to one skilled in the art that the specific details are not required in order to practice the described embodiments. Thus, the foregoing descriptions of specific embodiments are presented for purposes of illustration and description. They are not intended to be exhaustive or to limit the described embodiments to the precise forms disclosed. It will be apparent to one of ordinary skill in the art that many modifications and variations are possible in view of the above teachings.

1. A method for file system management on an embedded Universal Integrated Circuit Card (eUICC), the method comprising:

by the eUICC:

- receiving an electronic Subscriber Identity Module (eSIM) associated with a Mobile Network Operator (MNO);
 - parsing a file system of the eSIM to identify MNO specific information applicable to an eUICC level file;
 - creating an updated version of the eUICC level file based at least in part on the identified MNO specific information;
 - using the updated version of the eUICC level file when the eSIM is enabled on the eUICC; and
 - using a default version of the eUICC level file when no eSIMs are enabled on the eUICC.
2. The method of claim 1, wherein the eUICC level file comprises an elementary file (EF).
3. The method of claim 2, wherein the EF specifies one or more hardware specific operating parameters for the eUICC.
4. The method of claim 3, wherein the EF specifies a UICC maximum power consumption (UMPC).
5. The method of claim 3, wherein the EF specifies hardware parameters for the eUICC for different environment classes.
6. The method of claim 1, wherein the eUICC level file comprises a master file (MF).
7. The method of claim 1, further comprising:
- storing the updated version of the eUICC level file in parallel with the default version of the eUICC level file in a memory of the eUICC.
8. The method of claim 1, further comprising:
- receiving a second eSIM associated with the MNO; and
 - using the updated version of the eUICC level file when the eSIM is disabled and the second eSIM is enabled on the eUICC.
9. The method of claim 1, further comprising:
- receiving a second eSIM associated with a second MNO;
 - parsing the file system of the second eSIM to identify second MNO specific information applicable to the eUICC level file;
 - creating a second updated version of the eUICC level file based at least in part on the identified second MNO specific information; and
 - using the second updated version of the eUICC level file when the eSIM is disabled and the second eSIM is enabled on the eUICC.
10. An embedded Universal Integrated Circuit Card (eUICC) configurable for operation in a mobile device, the eUICC comprising:
- a memory; and
 - a processor communicatively coupled to the memory and configured to cause the eUICC to perform actions including:
 - receive an electronic Subscriber Identity Module (eSIM) associated with a Mobile Network Operator (MNO);
 - parse a file system of the eSIM to identify MNO specific information applicable to an eUICC level file;